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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,436	04/15/2004	Sung-Su Jung	8733.1025.00-US	6305

7590 08/09/2006

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EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/824,436

Applicant(s)

JUNG ET AL.

Examiner

Tarifur R. Chowdhury

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05/22/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14, 16-21 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-21 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>04/19/06 &amp; 07/12/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 22, 2006 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-14, 16-21 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Even though throughout the specification applicant discloses the seal pattern having a start pattern, end pattern and main pattern as well as connection part between the start pattern and main pattern, no where in the specification applicant discloses that the size of the connection part is adjusted such as a sealant of the connection part does not come into contact with the cut line when the first and second substrates are

attached together. Only in paragraph [0063], applicant discloses that the in order to minimize the crossing part between the connection part of the start pattern and the main pattern and the connection part of the main pattern and the end pattern, the start pattern and the main pattern and the main pattern and the end pattern may be connected in a round form but fails to disclose the newly amended limitation as discussed above.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 1-14, 16-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshizoe, US 2003/0025867.**

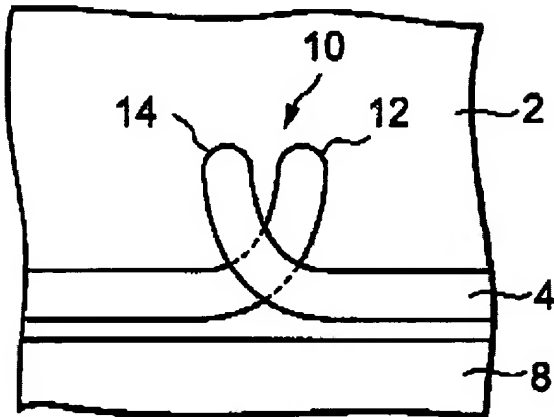
7. Yoshizoe discloses and shows in Figs. 3, 4 and 7, a seal pattern structure for a liquid crystal display panel, comprising:

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- a first and second substrates (2) having at least one image display part (8);
- a start pattern (12) on the first substrate (2) formed from a point spaced apart from the image display part to a point adjacent to an outer edge of the image display part;
- a main pattern (4) connected to the start pattern and encompassing the outer edge of the image display part; and
- an end pattern (14) connected to the main pattern and formed from the outer edge of the image display part to a point spaced apart from the image display part,
- liquid crystal (16) provided in the image display part (Fig. 7);
- a cut line outside the start pattern, the main pattern and the end pattern (inherent);

wherein a connection part between the start pattern and the main pattern and a connection part between the main pattern and the end pattern cross each other.

**FIG.4**



Yoshizoe differs from the claimed invention because he does not explicitly disclose the limitation such as, wherein a size of the connection part is such that a sealant of the connection part does not come into contact with the cut line when the first and second substrates are attached together. However, since Yoshizoe discloses a liquid crystal display panel that has a similar structure as the claimed invention and that the cut line is inherently outside the start pattern, the main pattern and the end pattern, the limitation such as the connection part is such that a sealant of the connection part does not come into contact with the cut line when the first and second substrates are attached together would have at least been obvious to prevent contamination and thus enhance the productivity of the liquid crystal display device.

Yoshizoe also discloses and shows in Fig. 4 that the start pattern (12) and the end pattern (14) overlap each other and are spaced apart from the display region (8) and that the seal pattern is formed on a first substrate, the liquid crystal material is

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dispensed inside the closed loop formed by the seal pattern and then a second substrate is adhered to the sealant. Further, a method of forming the seal pattern on a substrate for a liquid crystal display panel merely discloses the step of forming each element and since each element must be formed to make the device, the method would have been obvious in view of the device.

Yoshizoe further shows in Fig. 4 that the start pattern, the main pattern and the end pattern are connected in round form and that the start pattern and the end pattern are formed to be substantially parallel and symmetric with each other and that a distance between the start pattern and the end pattern gradually increases with the distance from the connection part.

Accordingly, claims 1, 3-5, 9-13 and 16-24 would have been obvious.

As to claims 2 and 6, Yoshizoe further discloses (page 3, paragraph 0036, 0038) that the seal pattern may be applied to either one of the two substrates having components such as electrodes and color filters and that the invention may be applied to a case where a plurality of display devices are formed on the same substrate.

As to claim 14, Yoshizoe also discloses that when the second substrate is adhered to the seal pattern it causes the adjacent ends of the start pattern (12) and end pattern (14) to melt into one another (page 3, paragraph 0034).

As to claims 7 and 8, Yoshizoe does not explicitly disclose that the seal pattern is formed of UV-hardening resin or a mixture of UV hardening resin and thermosetting resin. However, the use of UV-hardening resin or a mixture of UV-hardening resin and

thermosetting resin to form seal pattern is common and known in the art and thus would have been obvious for several reasons such as to improve reliability.

***Response to Arguments***

8. Applicant's arguments filed on April 24, 2006 have been fully considered but they are not persuasive.

In response to applicant's only argument that none of the references teach or suggest the newly amended limitation such as, "wherein a size of the connection part is such that a sealant of the connection part does not come into contact with the cut line when the first and second substrates are attached together, applicant's attention is respectfully requested to the rejection above.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R. Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

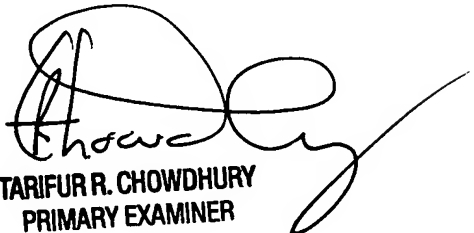
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nelms C. David can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TRC  
August 04, 2006



TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER